Oct. 16, 1951 W. P. OEHLER 2,571,285

PRESS WHEEL SCRAPER

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FIG. 1

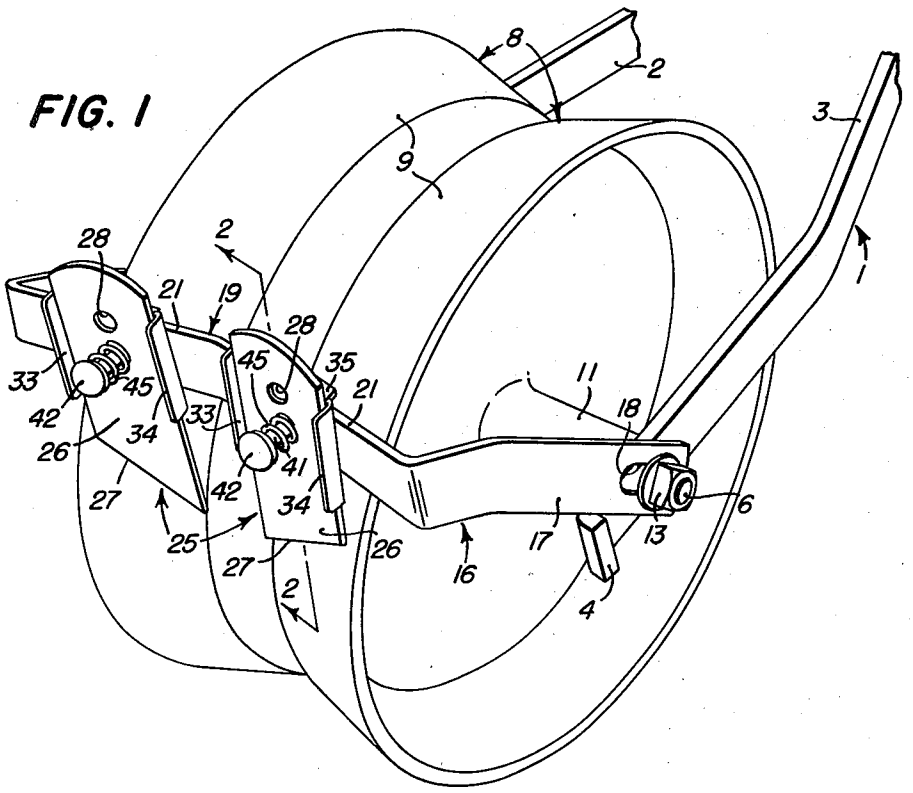


FIG. 2

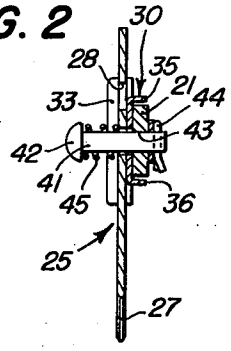


FIG. 3

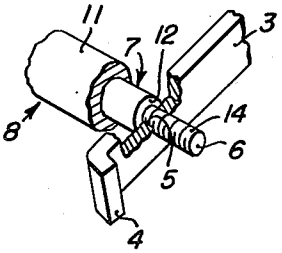
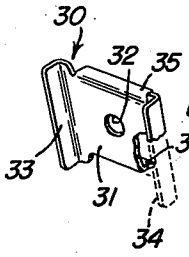


FIG. 4



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PRESS WHEEL SCRAPER

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6 Claims. (Cl. 280—158)

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The present invention relates generally to agricultural implements and more particularly to planters and other implements having ground-engaging press wheels.

The object and general nature of the present invention is the provision of new and improved wheel scraper means for the press wheels of planters and the like, and more particularly it is a feature of the present invention to provide individual press wheel scrapers held in contact with the wheel rims and the press wheels by spring pressure. More particularly, an important feature of this invention is the provision of a new wheel scraper means which includes a simplified mounting in which a single part serves to hold each scraper blade in the proper position and to accommodate adjustment of the blade position. Still further, another feature of this invention is the provision of a new and improved scraper bracket or frame and a new and improved blade holder.

These and other objects and advantages of the present invention will be apparent to those skilled in the art after a consideration of the following detailed description, taken in conjunction with the accompanying drawings, in which:

Figure 1 is a fragmentary perspective view of a planter in which the principles of the present invention have been incorporated, showing in particular the press wheels and press wheel frame and the press wheel scrapers and associated parts.

Figure 2 is a fragmentary sectional view taken generally along the line 2—2 of Figure 1.

Figure 3 is a fragmentary detail view of the press wheel axle and associated parts.

Figure 4 is a perspective view of one of the scraper blade holders.

Referring now more particularly to Figure 1, the press wheel frame is indicated in its entirety by the reference numeral 1 and includes a pair of laterally spaced, generally fore and aft extending press wheel frame bars 2 and 3. The rear end portion of each of the press wheel frame bars is turned laterally outwardly to form an abutment or stop 4 to which reference will be made below. The rear portion of each press wheel frame bar also is apertured, as at 5, Figure 3, to receive the reduced end 6 of a press wheel shaft or axle 7 upon which a pair of press wheels 8 are mounted for individual rotation. Each press wheel 8 includes a conical rim or tread section 9 and a hub section 11 journaled on the central or larger portion of the shaft 7, and the rear portions of the press wheel frame bars 2 and 3 bear against the

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end or shouldered portions 12 of the shaft or axle 7 when the clamping nuts 13 are tightened, as best shown in Figure 3, whereby the axle 7 is fixed against rotation relative to the press wheel frame bars 2 and 3. The outer reduced end portions 6 of the axle are threaded, as at 14, to receive the nuts 13, and the latter when tightened act through the slotted ends of a scraper frame or bracket, referred to below in detail, whereby the latter is also held against rotation relative to the press wheel frame 1.

The scraper frame or bracket is indicated in its entirety by the reference numeral 16 and comprises a generally U-shaped part having end portions 17, which are slotted, as at 18, and a central portion 19 which includes laterally inwardly angled scraper-receiving sections 21.

A scraper blade unit, indicated in its entirety by the reference numeral 25, is mounted on each of the angled scraper bracket sections 21, as best shown in Figure 2. Each scraper blade unit 25 includes a scraper blade 26 having a lower angled edge 27, which may be beveled or sharpened, if desired, and an upper portion having a pair of apertures 28. A blade holder 30, best shown in Figure 4, is interposed between each blade 26 and the associated scraper bracket section 21. Each blade holder 30 includes a central section 31, apertured as at 32, and having a pair of rearwardly extending, laterally spaced, vertically disposed flanges 33 and 34 and a pair of forwardly extending transverse vertically spaced flanges 35 and 36. The associated blade 26 is adapted to lie snugly between the vertical flanges 33 and 34, and, as best shown in Figure 2, the holder 30 fits snugly onto the associated scraper bracket section 21 by virtue of the flanges 35 and 36 which overhang the upper and lower edges of the bracket section 21. In each scraper blade unit 25, an attaching pin 41 having a head 42 is disposed in one of the blade apertures 28, the aperture 32 in the associated holder 30, and an aperture 43 in the associated scraper bracket section 21. The end of the pin 41 opposite the head 42 is apertured to receive a fastener in the form of a cotter 44, and a spring 45 is disposed between the outer face of the blade 26 and the head 42. Thus, each scraper blade 26 is held in position on the scraper frame or bracket 16 by means of a single pin and the latter, acting in conjunction with the associated flanged holder 30, serves to prevent the blade from being displaced either laterally or vertically relative to the supporting bracket 16. The spring 45 which is disposed about each pin 41 between the head 42 thereof and the rear face

of the blade 26, accommodates some movement of the blade relative to the associated press wheel 8, whereby the lower edge 27 of the blade may follow the rim or tread section 9 of the associated wheel without skipping. If the lower end of the blade 26 should wear, the blade may be lowered by removing the pin 41 and placing it in the upper hole 28. If desired, the blades 26 may have more than two holes 28.

The position of the blades 26 relative to the wheels may also be adjusted by loosening the nuts 13 and shifting the supporting bracket 16 toward or away from the shaft 7, the threaded ends 6 of which extend through the slots 18 in the ends 17 of the scraper bracket 16, whereby the degree of pressure with which the scraper blade 26, acted on by the springs 45, bear against the wheels may be varied. The lower edges of the end sections 17 normally lie against the outturned press frame bar portions 4 whereby the scraper frame 16, although fixed to the frame bars 2 and 3 by the clamping nuts 13, may be prevented from swinging downwardly about the axis of the shaft 7 and relative to the press wheel frame 1.

While I have shown and described above the preferred structure in which the principles of the present invention have been incorporated, it is to be understood that my invention is not to be limited to the particular details shown and described above, but that, in fact, widely different means may be employed in the practice of the broader aspects of my invention.

What I claim, therefore, and desire to secure by Letters Patent is:

1. A scraper unit for a ground wheel, comprising a scraper frame including an apertured section, a scraper blade having an aperture therein, a scraper blade holder including a pair of spaced apart blade-engaging flanges receiving said blade therebetween, a pair of spaced apart frame-engaging flanges receiving said scraper frame therebetween, and a central aperture lying generally centrally between both said frame-engaging flanges and said blade-engaging flanges, and a pin extending through the apertures in said blade, holder and frame section for holding the parts of the scraper unit together.

2. A scraper unit as defined in claim 1, further characterized by said flanges being of sufficient length to hold said blade against turning relative to the holder and said holder against turning relative to said frame section.

3. A scraper unit as defined in claim 1, further characterized by said blade having a plurality of spaced apertures whereby the blade may be adjusted toward or away from said ground wheel.

4. A scraper unit for a planter press wheel means carried by a press wheel frame or the like which includes two laterally spaced, generally fore and aft extending frame bars, each of which at its rear end includes a laterally outwardly extending portion and, forwardly thereof, axle means rotatably receiving said press wheel means, portions of said axle means extending laterally outwardly of said frame bars, said outwardly extending portions being threaded and carrying clamping nuts thereon, said unit comprising a U-shaped scraper bracket having ends and a central section, scraper blade means resiliently carried by said central section and movable relative to the latter toward and away from said press wheel means, said ends being slotted and disposed over the outwardly extending portions of said axle means, and said clamping nuts, when tightened, serving as means for fixing the slotted ends of said scraper bracket to said press wheel frame bars at points thereon forwardly of said laterally outwardly extending portions of the press wheel frame bars, whereby the latter are in a position to engage the lower portions of said scraper bracket ends so as to serve as stops for holding the scraper bracket against downward movement relative to said press wheel frame bars, said slots accommodating movement of said scraper bracket toward and away from the axis of said press wheels, whereby the degree of pressure exerted by said resiliently mounted blade means against said press wheels may be varied.

5. In a scraper unit, a blade holder comprising a substantially flat generally rectangular member having a pair of spaced apart flanges along one pair of opposite edges of said member and a second pair of flanges extending in the opposite direction along the other pair of opposite edges of said member and lying in planes disposed generally at right angles to the planes of said first mentioned flanges, all of said flanges lying generally normal to the plane of said member.

6. A scraper unit adapted to be mounted on an agricultural implement or the like having press wheels or the like and an apertured scraper-supporting bar, said scraper unit including a substantially flat rectangular member apertured generally centrally, a pair of spaced apart flanges along one pair of opposite edges of said member, said flanges being spaced apart a distance substantially equal to the width of said bar so that the latter may be loosely received between the flanges, a second pair of flanges extending in the opposite direction with respect to said first flanges and fixed to the other pair of opposite edges of said member, the planes of both flanges lying generally normal to the general plane of said member, a scraper blade lying between the flanges of said second pair and having an aperture adapted to register with the apertures in said strap and said flanged member, a connector extending loosely through all of said apertures and connected at its inner end with said bar and having its outer end spaced from said blade, a spring disposed between said outer end of the connector and the outer face of said blade, and the width of the flanges of both of said pairs exceeding that of said bar and said blade, respectively, whereby said blade is capable of limited rocking relative to said member and the latter is capable of limited rocking relative to said bar.

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